

What is claimed is:

1. A system comprising at least one collaborative component to eliminate communication barriers between software clients and developers and at least one development component for accelerating software development and enhancing quality assurance.
2. An online software development system comprising three collaborative components to eliminate communication barriers between software clients and developers and three development components for accelerating software development and enhancing quality assurance.
3. A system of claim 1 wherein there are three collaborative components to eliminate communication barriers between software clients and developers.
4. A system of claim 1 wherein there are three interactive development components for accelerating software development and enhancing quality assurance.
5. A system of claim 1 wherein the collaborative components and the development components work in a parallel fashion to smooth the entire software development process.
6. A system of claim 3 in which the three collaborative components comprise: (1) a Quality Assurance Project Manager; (2) Collaboration Management & Project Management;

and (3) a Prototype Server.

7. A system of claim 6 wherein communication occurs via the Internet.

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8. A system of claim 6 wherein component (1), the Quality Assurance Project Manager, is responsible for four checkpoints.

- 10 9. A method of claim 8 wherein the first checkpoint comprises checking the:

a) quality indexes of:

- 15 ▪ accuracy and reliability of plan definition,
- document completeness, and
- 20 ▪ unity of specification/standard; and

b) items of:

- plan of project development and
- 25 ▪ specifications of doc./standard.

10. A method of claim 8 wherein the second checkpoint comprises checking the:

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a) quality indexes of:

- accuracy of need definition,
- 35 • determination of acceptance standard,

- completeness of function and data,
- 5 • understandability of site structure and
 its software structure,
- norm degree of data structure,
- guide simplicity,
- 10 • various exchange methods and easiness
 (exchangeability), and
- access check, data safety and
15 completeness; and

b) items of:

- need analysis and specification manual,
- 20 • specification of system design,
- initial acceptance standard,
- 25 • test plan, and
- project progress and fund spending as
 planned.

30 11. A method of claim 8 wherein the third
 checkpoint comprises checking the:

a) quality indexes of:

- 35 • guide simplicity/page layout,

- page visual effect,
- various exchange method and easiness (exchangeability),
- access check,
- data safety and completeness,
- robustness,
- response time,
- program self description (internal notes of program); and

b) items of:

- specifications of system design,
- specifications of detailed design,
- entire effect of prototype, test result and problem databank, and
- project progress and fund spending as planned.

12. A method of claim 8 wherein the fourth checkpoint comprises checking the:

a) quality indexes of:

- determination/completedness of

acceptance standard,

- completeness/consistency of document,

5 • indexes related to operating system; and

b) items of:

- software configuration,

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- acceptance standard,

- system execution/user training plan, and

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- project progress/fund spending.

13. A system of claim 6 wherein component (2)
(Collaboration Management) comprises multiple
management channels, including internal methods
among developers (such as a collaborative tool,
20 an intranet-based communication tool and a
workflow tool), and external methods between
clients and developers (such as a toll-free
call center, e-mail, and web conferencing) via
25 a collaboration platform.

14. A system of claim 6 wherein component (2)
(Project Management) comprises:

30 a) Development Plan Management;

b) Resource Management (including human
resource, code, documents, solutions,
etc.);

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c) Expense Management;

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f) Bug Report;

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15. A system of claim 6 wherein component (3) (Prototype Server) comprises an on-site prototype server and an in-house prototype server.

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b) submitting stage development results and finishing the whole development of the project (including testing);

c) coordinating with the QA team and clients to revise the development result in order to meet clients' requirements; and

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d) assuring software quality required by the QA team.

- 10 19. A system of claim 16 wherein component (2), Computer-Aided Software Engineering (CASE) Management, comprises all activities of the whole software survival period, including: personnel organizing and managing, plan management, standardized management, software
- 15 configuring management, software quality assurance management, spending management, project-tracing, and process controlling management.
- 20 20. A system of claim 16 wherein component (2), Knowledge Management, is the core technical support and knowledge-sharing platform.
- 25 21. A system of claim 16 wherein component (3), the Development Server, comprises a Collaborative Platform in which Workflow is the tool used to record and monitor all detailed activities of programmers according to different conditions.
- 30 22. A system of claim 21 wherein the Collaborative Platform comprises a Configuration Management Server, a Multi-Platform Server, and a Client-Based Database.
- 35 23. A system of claim 1 wherein the online software development environment seamlessly connects

vendors and buyers of software in terms of dual project managers using dual management tools and dual servers in dual platforms.

- 5 24. A system of claim 23 wherein the dual project managers comprise the Development Project Manager and the Quality Assurance Project Manager.
- 10 25. A system of claim 23 wherein the dual managements comprise: a) Knowledge Management and Computer-Aided Software Engineering (CASE) & b) Quality Assurance (QA) Management.
- 15 26. A method of claim 25 wherein Knowledge Management gives software users access to a full range of services, including, but not limited to, information management, project management, resource center, user management, system maintenance, and technical communication.
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27. A method of claim 26 wherein an interface allows third-party software plug in and integrate so as to fully utilize all functions.
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28. A method of claim 25 wherein Quality Assurance (QA) Management is handled by the Quality Assurance Manager.
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29. A method of claim 23 wherein the dual servers comprise Development Server and Prototype Server, which work concurrently.
- 35 30. A method of claim 29 wherein Development Server is used by the project's software programmers

and Prototype Server is used by software clients.

- 5 31. A method of claim 29 wherein the two servers
are independent and linked by Change
Management.
- 10 32. A method of claim 31 wherein Change Management
is delivered through an integrated, project-
oriented incident management system.
- 15 33. A method of claim 32 wherein each workstation
includes its own integrated defect tracking
system which links defects to particular pieces
of the software code.
- 20 34. A method of claim 23 wherein the dual platforms
comprise an intranet used by software
programmers to access data internally and the
Internet used by software clients to access
their information.